

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017913**Date Inspected:** 09-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

CWI Inspector: ZPMC: Mr. Yu Jiao, Mr. Lv Li Qing

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG Bay 13

This QA Inspector observed ZPMC welder Mr. Han Lin stencil 062782 used flux cored welding procedure WPS-B-T-2233-TC-U5-F to make OBG segment 14AE grillage weld SA7038-035. This QA Inspector measured a welding current of approximately 215 amps and 26.0 volts. This QA Inspector observed Mr. Han Lin appeared to be certified to make this weld and the base materials were heated with electric heaters to preheat and maintain the base material temperature of this weld joint. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Li Shoufu stencil 066674 used flux cored welding procedure WPS-B-T-2233-TC-U5-F to make OBG segment 14AE grillage weld SA7038-049. This QA Inspector measured a welding current of approximately 215 amps and 26.0 volts. This QA Inspector observed Mr. Li Shoufu appeared to be certified to make this weld and the base materials were heated with electric heaters to preheat and maintain the base material temperature of this weld joint. Items observed on this date appeared to generally comply with

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applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Ye Bing stencil 066733 used flux cored welding procedure WPS-B-T-2233-TC-U5-F to make OBG segment 14AE grillage weld SA7038-063. This QA Inspector measured a welding current of approximately 205 amps and 27.0 volts. This QA Inspector observed Mr. Ye Bing appeared to be certified to make this weld and the base materials were heated with electric heaters to preheat and maintain the base material temperature of this weld joint. Items observed on this date appeared to generally comply with applicable contract documents.

### OBG Bay 14

This QA Inspector observed ZPMC welder Mr. Wei Yingchong, stencil 048043 used shielded metal arc welding procedure specification WPS-B-P-2212-FCM-1 to complete tack welds between OBG segment 13E floor beam diaphragm plate X3325A to a deck plate. This QA Inspector observed Mr. Wei Yingchong appeared to be certified to make this weld and the base materials were preheated with a torch prior to welding. This QA Inspector measured a welding current of approximately 165 amps. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wu Hai Jun, stencil 201087 used shielded metal welding procedure WPS-345-SMAW-2G(2F)-FCM-Repair to make OBG vertical plate stiffener plate welds VP3007-001-068 in accordance with critical weld repair document B-CWR2175 and VP3007-001-042 in accordance with critical weld repair document B-CWR2172. This vertical plate will be installed in OBG segment 13CE. This QA Inspector observed Mr. Wu Hai Jun appeared to be certified to make this weld, the base materials had been preheated with electrical heating elements prior to welding. This QA Inspector measured a welding current of approximately 240 amps. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Bian Henggui stencil 051359 used shielded metal welding procedure WPS-345-SMAW-2G(2F)-FCM-Repair to make OBG vertical plate stiffener plate weld VP3008-001-030 in accordance with critical weld repair document B-CWR2124. This vertical plate will be installed in OBG segment 13CE. This QA Inspector observed Mr. Bian Henggui appeared to be certified to make this weld, the base materials had been preheated with electrical heating elements prior to welding. This QA Inspector measured a welding current of approximately 180 amps. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Chen Chuanzong, stencil 044824 used flux cored welding procedure WPS-B-T-2132 to make OBG segment 13CE floor beam weld SEG3007F-030 and -031. This QA Inspector observed ZPMC CWI Mr. Lv Li Qing has recorded a welding current of 300 amps and 30.5 volts. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder stencil 217805 used flux cored welding procedure WPS-B-T-2132 to make OBG segment 13CE floor beam weld SEG3007G-033 and -034. This QA Inspector observed ZPMC CWI Mr. Lv Li Qing has recorded a welding current of 315 amps and 30.6 volts. Items observed on this date appeared to generally comply with applicable contract documents.

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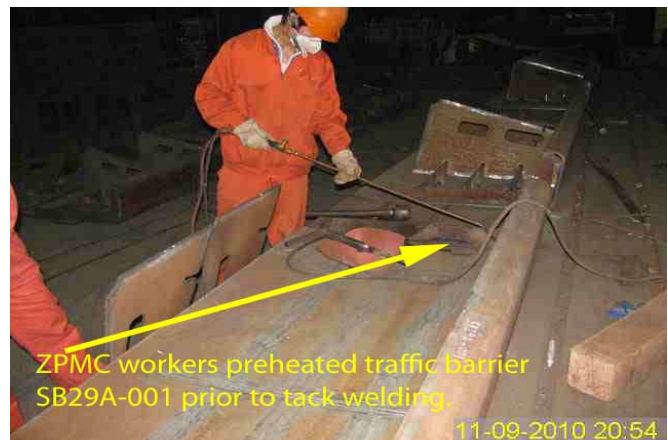
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This QA Inspector observed ZPMC welder stencil 044790 used flux cored welding procedure WPS-B-T-2132 to make OBG segment 13CE floor beam weld SEG3007G-025 and -026. This QA Inspector observed ZPMC CWI Mr. Lv Li Qing has recorded a welding current of 310 amps and 30.5 volts. Items observed on this date appeared to generally comply with applicable contract documents.

### OBG Bay 16

This QA Inspector observed ZPMC welder Ms. Jiang Julan, stencil 201905 used shielded metal arc welding procedure WPS-B-T-2113 to make traffic barrier stiffener plate welds SB10-016. This QA Inspector observed a welding current of approximately 150 amps and Ms. Jiang Julan appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhang Zhen Dong, stencil 218481 used shielded metal arc welding procedure WPS-B-T-2112 to make traffic barrier SB29A-001 tack welds. This QA Inspector observed a welding current of approximately 165 amps, the base material was preheated with a torch and Mr. Zhang Zhen Dong appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.



### Summary of Conversations:

See Above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devy +8615000026784, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Dawson,Paul
<b>Reviewed By:</b>	Carreon,Albert

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Quality Assurance Inspector
QA Reviewer

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